WHAT IS CLAIMED IS:

1. A transport apparatus which has a transport hand and holds and transports a mask with a pellicle by said transport hand,

wherein said transport hand comprises a gas injector arranged to inject a gas to at least a portion of a periphery of a pellicle support frame of the mask with the pellicle.

2. The apparatus according to claim 1, wherein the mask with the pellicle has a vent hole which brings an external space and a pellicle space between the pellicle and the mask into communication with each other, and said gas injector injects a gas so as to supply the gas into the pellicle space through the vent hole.

3. The apparatus according to claim 2, wherein said gas injector is arranged to inject the gas toward the vent hole.

4. The apparatus according to claim 1, wherein said transport hand further comprises a gas sucking section.

5. The apparatus according to claim 4, wherein said gas sucking section is arranged to suck at least part of a gas which is injected from said gas injector and is supplied into the mask with the pellicle.

6. The apparatus according to claim 1, wherein the mask with the pellicle has a first vent hole and a second vent hole which bring an external space and a

pellicle space between the pellicle and the mask into communication with each other, said transport hand further comprises a gas sucking section, said gas injector is arranged to supply a gas into the pellicle space through the first vent hole, and said gas sucking section is arranged to suck the gas in the pellicle space through the second vent hole.

7. The apparatus according to claim 6, wherein said gas injector has a first closing section which closes the first vent hole and is arranged to supply the gas into the pellicle space through the first vent hole while closing the first vent hole by said first closing section, and said gas sucking section has a second closing section which closes the second vent hole and is arranged to suck the gas in the pellicle space through the second vent hole while closing the second vent hole by said second closing section.

8. The apparatus according to claim 1, wherein said transport hand further comprises a cover with which a periphery of a pellicle structure of the mask with the pellicle is covered while holding the master with the pellicle.

9. The apparatus according to claim 1, wherein a gas to be injected by said gas injector is an inert gas.

10. The apparatus according to claim 1, wherein a gas to be injected by said gas injector contains at least one of nitrogen, helium, and argon.

11. Th apparatus according to claim 1, wherein the apparatus is arranged to transport the mask with the pellicle at least between a first chamber and a second chamber.

12. The apparatus according to claim 11, wherein the apparatus can be arranged in a transport space whose oxygen concentration and/or moisture concentration is higher than an oxygen concentration and/or a moisture concentration of each of said first and second chambers.

13. The apparatus according to claim 12, wherein in transport procedures for inserting said transport hand into said first chamber to make said transport hand hold the mask with the pellicle in said first chamber, and making said transport hand transport the mask with the pellicle through the transport space into said second chamber, a gas is injected from said gas injector before inserting said transport hand into said first chamber.

14. The apparatus according to claim 12, wherein in transport procedures for inserting said transport hand into said first chamber to make said transport hand hold the mask with the pellicle in said first chamber, and making said transport hand transport the mask with the pellicle through the transport space into said second chamber, a gas is injected from said gas injector after inserting said transport hand into said

first chamber and making said transport hand hold the mask with the pellicle in said first chamber.

15. A transport apparatus which transports a mask with a pellicle having a vent hole which brings an external space and a pellicle space between the pellicle and the mask into communication with each other while holding the master with the pellicle by a transport hand, comprising

a closing mechanism which closes the vent hole while holding a reticle with the pellicle by said transport hand.

16. A device manufacturing apparatus comprising:

a transport apparatus as defined in claim 1; and

an exposure section which transfers a pattern onto a substrate using a mask with a pellicle which is transported by the transport apparatus.

17. A device manufacturing apparatus comprising:

a transport apparatus as defined in claim 15; and

an exposure section which transfers a pattern onto a substrate using a mask with a pellicle which is transported by the transport apparatus.

18. A transport method of transporting a mask with a pellicle having a vent hole which brings an external space and a pellicle space between the pellicle and the mask into communication with each other, comprising

a step of transporting the master with the pellicle while purging the pellicle space with an inert

gas using th vent hole.

19. A transport method of transporting a mask with a pellicle having a first vent hole and a second vent hole which bring an external space and a pellicle space between the pellicle and the mask into communication with each other, comprising

a step of supplying an inert gas into the pellicle space through the first vent hole, and transporting the mask with the pellicle while sucking the inert gas from the pellicle space through the second vent hole.

20. A transport method of transporting a master with a pellicle having a vent hole which brings an external space and a pellicle space between the pellicle and the mask into communication with each other, comprising:

a step of closing the vent hole; and

a step of transporting the mask with the pellicle while closing the vent hole.

21. A device manufacturing method comprising:

a step of transferring a pattern onto a substrate coated with a photosensitive agent using a device manufacturing apparatus as defined in claim 16; and

a step of developing the substrate.

22. A device manufacturing method comprising:

a step of transferring a pattern onto a substrate coated with a photosensitive agent using a devic manufacturing apparatus as defined in claim 17; and

a step of developing the substrate.